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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,646	10/30/2001	Thomas S. Grason	BELL-0155/01267	2028

38952 7590 02/24/2005

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EXAMINER
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BLENNAN, AVALON

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/020,646

Applicant(s)

GRASON ET AL.

Examiner

Avalon Blenman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☒ Claim(s) 13,25,27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

Claims 1-31 of the preliminary amendment are pending in this application.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on October 30<sup>th</sup>, 2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Specification***

The disclosure is objected to because of the following informalities: the phrase "because they require information the user does not have to make a request" is unclear (page 1, paragraph 4, lines 4-5). Appropriate correction is required.

### ***Claim Objections***

Claims 13, 25 and 27 are objected to because of the following informalities; appropriate correction is required.

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In referencing to claim 13, it is believed the phrase should have read "routing said response to said client interface device" (line 4).

In referencing to claim 25, the phrase "remote loading function load *functions* that reside on devices logically connected to said module manager" (lines 4-5) is unclear. Should the phrase have read: remote loading function load *information modules* that reside on devices logically connected to said module manager. It is suggested applicant clarify.

In referencing to claim 27, it is assumed that applicant is referring to remote *information* modules (line 1) and will be treated as such. It is suggested applicant clarify.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 recites the limitation "said subscription center" (line 3). There is insufficient antecedent basis for this limitation in the claim. Should the claim have read: said subscription *database*?

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 11, 12, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Feit et al. (US Pub. No. 2001/0056354), hereafter referred to as Feit.

In referencing to claim 1, Feit discloses a distributed information processing system (fig. 1), comprising:

- a client device interface (fig. 2, #35, user interface form/HTML Form) adapted to receive requests for information from a plurality of remote devices (fig. 1, #12, Client Systems) (page 6, paragraph 52, lines 1-6, 11-14);

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- a module manager (fig. 1, #14, Server) adapted to receive and route said requests from said client device interface (page 6, paragraph 52, lines 14-16); and
- a plurality of information modules (fig. 1, #18, Service Providers), wherein said information modules register ("identify & communicate", page 5, paragraph 50, lines 1-6) with said module manager and module manager routes said request to an appropriate one of said plurality of information modules in accordance with a type of information requested (page 6, paragraph 52, lines 25-38)

In referencing to claim 2, Feit discloses (page 9, paragraph 179):

- the requests to the client device interface are formatted as an plain-text formatted email

In referencing to claim 11, Feit discloses a distributed information processing system (see fig. 1) comprising a subscription service that maintains a subscriber database (#16, Proprietary Database), wherein:

- information is sent by said information modules (service providers); and said subscription *database* is consulted to determine to which

clients (client privileges) the information should be forwarded (page 4, paragraph 42, lines 1-10)

In referencing to claims 12 and 17, Feit discloses a method of (fig. 4) and a computer readable medium containing computer executable instructions for (page 2, paragraph 18, lines 1-5) receiving and responding to requests in a distributed information processing system, the method comprising: / the computer executable instructions for performing the steps of:

- receiving a request at a client interface (user interface form/HTML form) (page 6, paragraph 52, lines 1-6, 11-14);
- forwarding said request to a module manager (server system) (page 6, paragraph 52, lines 14-16, 25-29),
- consulting (obtaining qualification requirements) a registry of available information modules (service providers) (page 5, paragraph 50, lines 1-13);
- forwarding said request to an appropriate information module (service provider) as determined in accordance with a type of information requested (page 6, paragraph 52, lines 34-38)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 6, 15, 16, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feit in view of Rubert. et al. (US Patent 6,366,915), hereafter referred to as Rubert.

In referencing to claim 3, Feit teaches all the limitations of claim 1 as set forth above. Although, Feit teaches all of these features, Feit does not explicitly disclose that a response generated at the information module (service provider) is returned to the requestor (client) by the client device interface (user interface form/HTML form) via the module manager (server). Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Rubert.

In analogous art, Rubert discloses a distributed information processing system (see fig. 3), comprising a client device interface (#365, IR System Interface) adapted to receive requests for information from a plurality of remote devices (#360-#380, client computer systems); a module manager (#300, Information Reporter (IR) System) adapted to receive and route said requests (#392) from said client device interface; and a plurality of information modules



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(#350-#354, database (DB) servers), and module manager routes said request (#396) to an appropriate one of said plurality of information modules in accordance with a type of information requested (col. 3, line 1 – col. 4, line 7).

Rubert further discloses:

- the appropriate one of said plurality of information modules (DB servers) generates a response (fig. 3, #396) that is returned to said [Query Executer (QE) of the] module manager (IR System) (10, lines 20-27); and
- said [QE of the] module manager (IR System) routes said response (fig. 3, #392) to said client interface device (IR System Interface) for delivery to a requestor (col. 11, lines 13-16, col. 9, lines 17-19)

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert where Feit's system would return the information generated at the information module to the module manager, where it could then be delivered to the requestor via the client device interface.

The motivation for doing so would be to allow for bi-directional interactions with the requestor (ex. prompt for additional service, advertisements) (see Feit, page 2, paragraph 16-17).

In referencing to claims 5, 15, and 20, Feit teaches all the limitations of claims 1, 12, and 17 as set forth above. Feit does not explicitly disclose that the requests are made to the module manager as one of a synchronous or asynchronous request. Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Rubert. In analogous art, Rubert discloses:

- requests are made to said module manager (IR System) as one of a synchronous or asynchronous request, wherein synchronous requests (low impact query) are handled on a first-in-first-out basis, and wherein asynchronous requests are processed and returned when completed (col. 10, line 61 – col. 11, line 4)

Given this feature, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert where Feit's system requests could be synchronous or asynchronous.

The motivation for doing so would be for load balancing purposes to minimize the load on the information module by postponing the retrieval of requested information (see Rubert, col. 3., lines 23-27)

In referencing to claims 6 and 21, Feit teaches all the limitations of claims 1 and 17 as set forth above. Feit does not explicitly disclose instances of the

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module manager. Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Rubert. In analogous art, Rubert implicitly discloses:

- (claims 6 and 21 respectively) instances (session logon to DB server) of said [QE of the] module manager (IR system) are created each time a new request is received / creating an instance (session logon to DB server) of said [QE of the] module manager upon receiving said request (col., 10, lines 20-27); and
- (claims 6 and 21 respectively) discarded after the request has been handled / discarding said instance (inherent session logoff) after said response has been handled (col., 10, lines 20-27)

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert where Feit's where instances of the module manager are created and discarded per request.

The motivation for doing so would be to avoid the chances of unauthorized access to the information modules by discarding the module instance (see Rubert, col. 4, lines 25-29).

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In referencing to claim 16, Feit teaches all the limitations of claim 12 as set forth above. Feit does not explicitly disclose a response generated at the information module (service provider). Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Rubert. In analogous art, Rupert discloses:

- generating (executing) information in the form of a response (fig. 3, #396) at one of said information modules (DB server) (col. 10, lines 20-27);

Feit further discloses (page 4, paragraph 42, lines 1-10):

- consulting said subscriber database (fig. 1, #16, Proprietary Database); and

Feit does not explicitly disclose a response generated at the information module (service provider) is forwarded to clients. Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Rubert. In analogous art, Rupert discloses:

- forwarding said response (fig. 3, #392) to clients (col. 11, lines 13-16, col. 9, lines 16-18)

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As set forth above in reference to claim 6, Rubert implicitly teaches (col., 10, lines 20-27):

- creating an instance (session logon to DB server ) of said [QE of the] module manager upon receiving said request; and
- discarding said instance (inherent session logoff) after said response has been handled

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert where Feit's responses to requests could be generated at the information module (server) and forwarded to the clients in accordance with the subscriber database (proprietary database). Accordingly, instances of the module manager could be created and discarded per each request.

The motivation as set forth above in reference to claims 3 and 6 would be to allow for bi-directional communication and avoid unauthorized access to the information modules.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feit in view of Rubert and in further view of Hunt (US Publication 2002/0087657).

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Feit in view of Rubert teach all the limitations of claims 1 and 6 as set forth above. Feit in view of Rubert do not explicitly teach stateless and multithreaded module manager instances (sessions). Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit and Rubert as evidenced by Hunt.

In analogous art, Hunt discloses a distributed information processing system (see fig. 4), comprising a client device interface (#442, Application Program Interface (API)) adapted to receive requests for information from a plurality of remote devices (#402, Client Devices); a module manager (#404, Server) adapted to receive said requests (# 450) from said client device interface (page 3, paragraph 40). Hunt further discloses:

- instances (sessions) of said module manager (server) are stateless (page 3, paragraph 42-43, line 9) and multi-threaded (page 4, paragraph 50)

[the module manger (server) does not save the state (SONE) of the connection and is therefore stateless]

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert in view of Hunt where Rubert's instances of module manager are stateless and multi-threaded.

The motivation for doing so would be so that once the request is serviced and the session/connection is terminated, the module manger would be burdened by maintaining the state information on behalf of the client (see Hunt, page 2, paragraph 17). In addition, the multi-threaded would allow other requests to be processed concurrently.

Claims 8, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feit in view of Strahm et al. (US Pub. No. 2003/0046337), hereafter referred to as Strahm, in further view of Langseth et al. (US Patent 6,741,980), hereafter referred to as Langseth.

In referencing to claims 8 and 9 Feit teaches all the limitations of claim 1 as set forth above. Feit discloses a remote information module (fig. 1, #18, service provider), but does not explicitly disclose a local information module loaded via inter-process communication. Furthermore, Feit is silent as to how his remote information module is loaded. Nonetheless, these features would have been obvious modifications to the system disclosed by Feit as evidenced by Strahm and Langseth.

In analogous art, Strahm discloses a distributed information processing system (see fig. 2) with computer readable medium containing computer executable instructions (page 5, paragraph 67, lines 1-11) comprising a client device interface (fig. 2, #222, Network Interface) adapted to receive requests for

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information from a plurality of remote devices (fig. 2, #214(x), Clients); a module manager (fig. 2, #204, Web Server) adapted to receive and route said requests from said client device interface; and a plurality of [local] information modules (fig. 2, #210 & #212, Storage), and module manager routes said request to an appropriate one of said plurality of [local] information modules in accordance with a type of information requested (page 1, paragraph 12, lines 1-5, paragraph 17, lines 1-6). Strahm further discloses:

- (claim 8) information modules (storage) are loaded locally (via fig. 2, #208, Web Content Monitor & Loader), wherein local modules reside on a same physical device as said module manager (page 4, paragraph 53-54)

Strahm further discloses:

- (claim 9) communication (query) between locally loaded modules (storage) and said module manager (web server) is accomplished via inter-process communication (page 1, paragraph 17)

In analogous art, Langseth discloses a distributed information processing system (see fig. 2B), comprising a client device interface (#24, Web Subscription Interface) adapted to receive requests for information from a plurality of remote devices (#22, End Users); a module manager (#26, Subscriber Database System) adapted to receive and route said requests from said client device



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interface; and a plurality of information modules (#40 Channel Databases), and module manager retrieves said request from an appropriate one of said plurality of information modules in accordance with a type of information requested (col. 11, lines 21-29, 32-36). Langseth further discloses:

- (claim 8) information modules (channel databases) are loaded remotely (via fig. 2B, #28, Data Load System), wherein remote modules (channel databases) are located on other devices (col. 11, lines 34-36)

Given all of these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit in view of Strahm and Langseth where Feit's system could also include local information modules that are loaded locally via inter-process communication (Strahm). Furthermore, the already existing remote information modules could be loaded remotely (Langseth).

The motivation for doing so would be so that the loading of information modules in general would allow the most current information to be maintained via periodic feeds (see Langseth, col. 4., lines 16-21). Furthermore, selected information modules could be loaded locally to store information that is most frequently requested, thus reducing or eliminating the load on the network and allowing for a quicker turn around time (see Strahm page 3, paragraph 44, lines 4-8).

In referencing to claim 10, Feit implicitly discloses (page 7, paragraph 55):

- communication (formatted request) between remotely loaded modules (service providers) and said module manager (server) is accomplished via TCP/IP sockets ("common data format protocol")

Claims 13, 18, 22, 23, 24, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feit in view of Rubert in further view of Strahm.

In referencing to claims 13 and 18, Feit teaches all the limitations of claims 12 and 17 as set forth above. Feit further discloses method/step of:

- (claims 13 & 18) maintaining a list of supported services provided by each of said information modules (service providers) (page 6, paragraph 54, lines 1-6)

Although Feit teaches this feature, Feit does not explicitly disclose that a response processed at the information module (service provider) is returned to the requestor (client) by the client device interface (user interface form/HTML form) via the module manager (server). Nonetheless, this feature would have

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been an obvious modification to the system disclosed by Feit as evidenced by Rubert. Rubert discloses a method/step of:

- (claim 13 only) processing (executing) the request at said appropriate information module (DB server) (col. 10, lines 20-27);
- (claim 13 only) generating a response (fig. 3, # 396) that is returned to said [QE of the] module manager (IR System) (col. 10, lines 20-27); and
- (claim 13 only) routing said response (fig. 3, #392) to said client interface device (IR System Interface) for delivery to a requestor (col. 11, lines 13-16, col. 9, lines 16-18)

Although Feit in view of Rubert teach all of these features, they do not explicitly disclose service collisions of plural information modules. Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit in view of Rubert as evidenced by Strahm. In analogous art, Strahm discloses:

- (claims 13 & 18) handling service collisions if plural information modules (storage) are capable of responding to said type of information such that only one information module (storage) processes said request (page 4, paragraph 53-54)

[the monitor updates one information module (#212 storage) with the information (web content) of another information module (storage #210), therefore both information modules would at one point contain the same type of information thus being capable of responding to the request, but only one information module (storage #212) responds to the request]

Given all of these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert in view of Strahm where in addition to maintaining a list of supported services of the information modules, Feit's system could return the information generated at the information module to the module manager, where it could then be delivered to the requestor via the client device interface. Feit's system could also allow only one of the information modules to reply to a request during a service collision.

The motivation as set forth above in reference to claim 3, would be to allow bi-directional communication to the requestor. Additionally, the load on the information modules could be reduced in the case of service collisions because only one information module would respond to a request for the same type of information, eliminating unnecessary processing of requests (see Rubert, col. 2, lines 26-37).

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In referencing to claim 22, Feit discloses a module manager (fig. 1, #14, Server) that manages a request for information received at a mailbox (at an inherent email inbox, page 9, paragraph 179), comprising:

- a registry (qualification requirements) of information modules (service providers) (page 5, paragraph 50, lines 1-13);

Although, Feit teaches this feature, Feit does not explicitly disclose a module loading function. Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Strahm. In analogous art, Strahm discloses:

- a module loading function (fig. 2, # 208, Web Content Monitor and Page Loader) for dynamically loading said information modules (fig. 3, # 212, Storage) upon receipt of said request (event) (page 4, paragraph 53-54)

Feit further discloses:

- said module manager (fig. 2, # 14, Server) routes said request to an appropriate information module (fig. 2, #18, Service Provider) for resolution (page 6, paragraph 52, lines 34-38)

Although, Feit teaches this feature, Feit does explicitly disclose a response returned to the module manager (server) once the request is resolved at the appropriate information module (service provider). Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Rubert. Rubert discloses:

- said appropriate information module (DB sever) resolves said request and returns a response (fig. 3, #292) to said [QE of the] module manager (IR System) (col. 10, lines 20-27)

Given all of these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Fiet and Rubert in view of Strahm where the Feit's information module could be loaded upon receipt of the request and a response returned to the module manager.

The motivation for doing so would be so that the requested content would be dynamically loaded per request so as to update the information module since the last request (see Strahm, page 4, paragraph 54). Additionally, the response could be returned to the module manger, acting on behalf of the requestor.

In referencing to claim 23, Feit discloses (page 6, paragraph 54, lines 1-6):

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- said module manager (server) maintains a list of supported services provided by each of said information modules (service providers)

In referencing to claim 24, Feit teaches (page 5, paragraph 50, lines 1-13) the registering of information modules (service providers) as set forth above in reference to claim 22. Strahm teaches the handling of service collisions (page 4, paragraph 53-54) as set forth above in reference to claim 13.

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert in view of Strahm where Feit's module managers could handle service collisions such that if plural information modules register as supporting a same service, the module manager could determine which information module would handle the request

The motivation as set forth above in reference to claims 13, would be to avoid the unnecessary processing of requests.

In referencing to claim 30, Feit and Rubert in view of Strahm teach all the limitations of claim 22 as set forth above. Feit in does not explicitly disclose instances of a module manager. Nonetheless, this feature would have been an

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obvious modification to the system disclosed by Feit as evidenced by Rubert. In analogous art, Rubert implicitly discloses (col., 10, lines 20-27):

- instances (logon session to DB server) of said [QE of the] module manager are created each time a new request is received and discarded (inherent session logoff) after the request has been handled

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert in view of Strahm where Feit's instances of the module manager are created and discarded per request.

The motivation as set forth above in reference to claim 6, would be to avoid unauthorized access to the information module.

In referencing to claim 31, Feit discloses a user interface (user interface form/HTML form), wherein:

- said user interface is adapted to configure said module manager (page 6, paragraph 52, lines 14-16)



Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feit in view of Rubert, in view of Strahm in further view of Langseth.

In referencing to claims 25 and 26, Feit and Rubert in view of Strahm teach all the limitations of claim 22 as set forth above. Feit is does not explicitly teach a locally loaded information module via inter-process communication. Furthermore, Feit is silent as to how his remote information module is loaded. Nonetheless, these features would have been obvious modifications to the system disclosed by Feit as evidenced by Strahm and Langseth. In analogous art Strahm discloses:

- (claim 25) local module loading functions (fig. 2, #208, Web Content Monitor & Loader), wherein said local loading function loads information modules (storage) that reside on a same physical device as said module manager (page 4, paragraph 53-54)

Strahm further discloses:

- (claim 26) local modules (storage) communicate (query) with said module manager (Web Server) via one of inter-process communication (query, page 1, paragraph 17)

In analogous art, Langseth discloses:

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- (claim 25) remote module loading functions (via fig. 2B, #28, Data Load System), wherein said remote loading function load *information modules* (channel databases) that reside on devices logically connected to said module manager (col. 11, lines 34-36)

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert in view of Strahm and Langseth where Feit's information modules (service providers) could be loaded locally via inter-process communication (Strahm) and remotely (Langseth).

The motivation as set forth above in reference to claims 8 and 9, would be to reduce the load on the network and allow for a quicker response time.

In referencing to claim 27, Feit discloses (page 7, paragraph 55):

- remote modules communicate with said module manager via TCP/IP sockets ("common data format protocol")

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Claims 4, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feit in view of Hunt, and in further view of Bavadekar (US Publication 2003/0009571).

Feit teaches all the limitations of claims 1, 12, and 17 as set forth above. Although Feit teaches all of these features, Feit does not explicitly disclose that requests and responses formatted as serializable Java objects. Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Hunt in view of Bavadekar.

In analogous art, Hunt discloses an Application Protocol Interface (API) client interface (fig. 4, #442) that accepts requests from clients and provides responses from the module manager. Hunt neither discloses that the requests and response are formatted as serializable java object. Nonetheless this feature would have been an obvious modification to the system disclosed by Hunt as evidenced by Bavadekar.

In analogous art, Bavadekar discloses a distributed information processing system (see fig. 1), comprising a client device interface (page 1, paragraph 4, lines 15-17) adapted to receive requests (messages), for information from a plurality of remote devices (#102A-102C); a module manager (#100A, Messaging Server) adapted to receive (fig. 6B, step 624) and route (fig. 6B, step 626) said requests from said client device interface; and a plurality of information modules (#104A-104B, Servers), and module manager routes said request to an

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appropriate one of said plurality of information modules in accordance with a type of information requested. Bavadekar further discloses:

- requests and responses (entered via the API) are formatted as Java objects (page 5, paragraph 73, page 1, paragraph 9 & 14)

Given these features, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Hunt in view of Bavadekar where request and responses are formatted as serializable Java objects.

The motivation for doing so would be so that the state of the object could be saved and sent across the network connection between the requestor and module manager.

Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feit, Rubert, and Strahm in further view of Hunt and Bavadekar.

In referencing to claim 28, Feit is view of Rubert and Strahm teach all the limitations of claim 22 as set forth above. Feit is view of Rubert and Strahm do not explicitly disclose requests made of serializable Java objects. Nonetheless, this feature would have been an obvious modification to the system discloses by

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Feit, Rubert, and Strahm as evidenced by Hunt in view of Bavadekar. In analogous art, Bavadekar discloses:

- request (entered via the API) is made of a serializable Java object (page 5, paragraph 73, page 1, paragraph 9 & 14)

Given this feature, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert and Strahm in view of Hunt and Bavadekar where requests are made of serializable Java objects.

The motivation as set forth above in reference to claim 4, would be so that the state of the object could be saved and sent across the network connection between the requestor and module manager.

In referencing to claim 29, Feit and Rubert in view of Strahm teach all the limitations of claim 22 as set forth above. Feit does not explicitly disclose that the requests are made to the module manager as one of a synchronous or asynchronous request. Nonetheless, this feature would have been an obvious modification to the system disclosed by Feit as evidenced by Rubert. In analogous art, Rubert discloses:

- said request is either synchronous or asynchronous, wherein a synchronous request is handled on a first-in-first-out basis, and

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wherein an asynchronous request is processed and a response returned in accordance with a processing time of the request (col. 10, line 61 – col. 11, line 4)

Given this feature, a person of ordinary skill in the art would have readily recognized the advantages and desirability of combining the teachings of Feit and Rubert in view of Strahm and Langseth where Feit's requests could be synchronous or asynchronous.

The motivation as set forth above in reference to claim 5, would be for load balancing purposes.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avalon Blenman whose telephone number is (571) 272-5864. The examiner can normally be reached on Mon-Fri, 7:00 AM - 4:30 PM (even date Mons. off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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AB



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